

Application No. 09/639,599
Amendment Dated: May 9, 2005
Reply to Office Action of: February 8, 2005

1. (previously presented) A connection system for connecting at least one light-gauge steel panel to a support structure comprising:

applying an adhesive to at least one of said panel or support structure, said adhesive being curable at room temperature and able to adhere to steel;

placing said panel against said support structure; and

allowing said adhesive to cure,

so that said panel is joined to said structure in a connection which is significantly enhanced in load-bearing capacity to a connection provided only by the at least one fastener.

2. (previously presented) The connection system of claim 1 wherein the fastener is selected from the group consisting of self-drilling screws, rivets, pins, and clinches.

3. (previously presented) The connection system of claim 1 wherein each said fastener is a self-drilling screw.

4. (previously presented) The connection system of claim 1 wherein said adhesive is a two-part epoxy system.

5. (previously presented) The connection system of claim 4 wherein said epoxy system comprises a resin and hardener which are mixed in substantially equal portions by weight.

6. (previously presented) The epoxy system of claim 4 wherein said epoxy system comprises a resin and hardener which are mixed in substantially equal portions by volume.

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7. (previously presented) The connection system of claim 1 wherein said adhesive fully cures within approximately 72 hours.

8. (previously presented): A connection system for connecting at least one light-gauge steel member to a second member comprising:

applying a bead of epoxy to at least one of said members, said epoxy being curable at room temperature and able to adhere to steel;

positioning said members in adjacent relationship with said epoxy disposed between said members;

driving at least one fastener through one member into said other member;
and

allowing said epoxy to cure,

so that said members are joined in a connection which is significantly enhanced in load-bearing capacity to a connection provided only by the at least one fastener.

9. (previously presented): The connection system of claim 8 wherein the fastener is selected from the group consisting of self-drilling screws, rivets, pins, and clinches.

10. (previously presented): The connection system of claim 8 wherein each said fastener is a self-drilling screw.

11. (previously presented): The connection system of claim 8 wherein said epoxy comprises a resin and hardener which are mixed in substantially equal portions by weight.

12. (previously presented): The connection system of claim 8 wherein said epoxy comprises a resin and hardener which are mixed in substantially equal portions by volume.

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13. (previously presented): The connection system of claim 8 wherein said adhesive fully cures within approximately 72 hours.

14. (previously presented): The connection system of claim 8 wherein a bead of epoxy is applied to both members.

15. (previously presented): The connection system of claim 1 wherein each said adhesive is composed of a material selected from the group consisting of epoxy, methacrylate and urethane.

16. (previously presented): A connection system for connecting at least one light-gauge steel panel to a steel frame comprising:

applying a bead of adhesive to at least one of said panel or frame, said adhesive being curable at room temperature and able to adhere to steel;

positioning said panel against said frame with said adhesive disposed between said panel and frame;

driving at least one fastener through said panel into said frame; and

allowing said adhesive to cure,

so that said panel is joined to said frame in a connection which is significantly enhanced in load-bearing capacity to a connection provided only by the at least one fastener.

17. (previously presented): The connection system of claim 16 wherein the fastener is selected from the group consisting of self-drilling screws, rivets, pins, and clinches.

18. (previously presented): The connection system of claim 16 wherein the adhesive is selected from the group consisting of epoxy, methacrylate, and urethane.

19. (previously presented): An assembly comprising; a support structure;
a panel of light-gauge steel mounted to said support structure;
a structural adhesive curable at room temperature and disposed between
said support structure and said panel;

at least one fastener driven through said panel into said support structure,
so that said panel is joined to said structure in a connection which is
significantly enhanced in load-bearing capacity in relation to a connection
provided only by the at least one fastener.

20. (previously presented): The assembly of claim 19, wherein each said
fastener is selected from the group consisting of self drilling screws, rivets, pins
and clinches.

21. (previously presented): The assembly of claim 19, wherein said adhesive
is a two part epoxy system.

22. (previously presented): An assembly comprising: a metal support frame;
a panel of light-gauge steel mounted to said support frame;
a structural adhesive curable at room temperature disposed between said
support frame and said panel;
a plurality of fasteners driven through said panel into said support frame,
so that said panel is joined to said support structure in a connection which
is significantly enhanced in load-bearing capacity in relation to a connection
provided only by the at least one fastener.

23. (previously presented): The assembly of claim 22, wherein the fasteners
are selected from the group consisting of self-drilling screws, rivets, pins and
clinches.

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24. (previously presented): The assembly of claim 22, wherein said adhesive is a two part epoxy system.